

REMARKS/ARGUMENTS

Applicants have amended the related application information in the specification to update it with issued patent numbers. Applicants have further amended the specification to correct typographical errors.

Claims 1-20 are canceled without prejudice; and new claims 21-75 are pending. No new matter has been added.

Claims 1-3, 5 and 16-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Wilding (US 5,955,029). This rejection is now construed to apply to new claims 21-75.

Applicants request reconsideration of this rejection in view of the following arguments.

Claims 21-40

Applicants respectfully submit that independent claim 21 is novel and patentable over Wilding because, for instance, Wilding does not teach or suggest a device having a lysing chamber containing capture material for capturing the cells or viruses in the sample as the sample flows through the lysing chamber.

In Wilding, a cell lysis chamber 22B has piercing protrusions 90 which tear open cells. The lysis chamber does not contain capture material for capturing the cells as sample fluid flows through the chamber 22B. Instead, cells are bound to a wall surface in a separate cell separation chamber 22A positioned upstream of the lysis chamber 22B. Wilding thus fails to teach or suggest the structure recited in claim 21.

Applicants' device as recited in claim 21 provides important advantages in concentrating cells to be lysed in a lysing chamber and effectively lysing the captured cells using a transducer coupled to a wall of the lysing chamber.

The references of Murphy, Nelson, Carlin, Bersted, and Lynnworth, cited by the Examiner in rejecting the dependent claims, do not remedy the shortcomings of Wilding in failing to teach Applicants' structure as recited in claim 21. For at least the foregoing reasons, claim 21 and claims 22-40 depending therefrom are patentable.

Claims 41-56

Applicants respectfully submit that independent claim 41 is novel and patentable over Wilding because, for instance, Wilding does not teach or suggest a device having a lysing chamber containing capture material for capturing the cells or viruses as the sample flows through the lysing chamber, and further containing binding material for binding the nucleic acid released from the lysed cells or viruses until the nucleic acid is eluted from the lysing chamber.

In Wilding, a cell lysis chamber 22B has piercing protrusions 90 which tear open cells. The lysis chamber does not contain capture material for capturing the cells as sample fluid flows through the chamber 22B; nor does it contain binding material for binding the nucleic acid. Instead, cells are bound to a wall surface in a separate cell separation chamber 22A positioned upstream of the lysis chamber 22B. Wilding thus fails to teach or suggest the structure recited in claim 41.

Applicants' device as recited in claim 41 provides important advantages in concentrating cells to be lysed in a lysing chamber, effectively lysing the captured cells, and binding the nucleic acid released from the cells for purification.

The references of Murphy, Nelson, Carlin, Bersted, and Lynnworth, cited by the Examiner in rejecting the dependent claims, do not remedy the shortcomings of Wilding in failing to teach Applicants' structure as recited in claim 41. For at least the foregoing reasons, claim 41 and claims 42-56 depending therefrom are patentable.

Claims 57-75

Applicants respectfully submit that independent claim 57 is novel and patentable over Wilding because, for instance, Wilding does not teach or suggest a device having a lysing chamber containing capture material for capturing the cells or viruses as the sample flows through the lysing chamber, and further containing removal material for holding unwanted material in the lysing chamber while the nucleic acid is eluted from the lysing chamber.

In Wilding, a cell lysis chamber 22B has piercing protrusions 90 which tear open cells. The lysis chamber does not contain capture material for capturing the cells as sample fluid flows through the chamber 22B; nor does it contain removal material for holding unwanted

material in the lysing chamber while the nucleic acid is eluted from the lysing chamber. The references of Murphy, Nelson, Carlin, Bersted, and Lynnworth, cited by the Examiner in rejecting the dependent claims, do not remedy the shortcomings of Wilding in failing to teach Applicants' structure as recited in claim 57.

For at least the foregoing reasons, claim 57 and claims 58-75 depending therefrom are patentable.

Double-Patenting Rejections in View of U.S. Patent No. 6,440,725

Applicants submit a terminal disclaimer herewith to overcome this rejection.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



Chun-Pok Leung
Reg. No. 41,405

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
RL:rl
60170824 v1